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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,440	01/14/2005	David Roberts McMurtry	122204	1862
25944	7590	04/20/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			GUADALUPE, YARITZA	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,440	<b>Applicant(s)</b> MCMURTRY ET AL.	
	<b>Examiner</b> Yaritza Guadalupe McCall	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 20-39 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2 and 20-39 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Acknowledgement*

1. The Amendment filed on February 7, 2006 has been entered. The present Office Action is made with all the suggested amendments being fully considered. Accordingly, pending in this Office action are claims 1, 2 and 20 – 39.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20 – 22 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites “ cooperating means located on the rotary machine part ” which fails to further limit the language in claim 2, since claim 2 already recites a similar limitation. For example, claim 2 recites “cooperating means on one or both of said rotary machine part and said rotary ring”. If one was to choose said cooperating means on the rotary machine part, then claim 20 will become redundant and a duplicate claim.

Appropriate correction is required.

Claims 21 – 22 and 27 are rejected due to their dependency on claim 20.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 20 – 21, 23 – 31 and 33 - 39 are rejected under 35 U.S.C. 102 (b) as being anticipated by Ellis ( US 4,332,087 ).

In regards to claim 1, Ellis discloses a rotary ring comprising a flexible ring (21) having scale markings provided on a surface thereof ( See Figure 1 ), the flexible ring being sufficiently flexible to self retain ( as suggested from figure 2 ), about a rotary machine part ( 25, 26 ) solely by elastic deformation of at least one portion thereof.

With respect to the intended use : the examiner points out that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the structural limitations are able to stand alone. See *In re Hirao* , 535 F.2d 67, 190 USPQ 15 ( CCPA 1976) and *Kropa v.*

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Robie , 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. In re Schreiber, 44 USPQ2d 1429 ( Fed. Cir. 1997 ).

With respect to claim 2, Ellis also discloses a system for mounting a rotary ring (21) for use in scale reading apparatus onto a machine part ( 25, 26 ), comprising a rotary ring ( 21 ) and cooperating means ( 23, 34, 35 ) on said rotary ring ( See Figure 2 ) and on said rotary machine part ( 32, 33, 41, 42 ), said cooperating means comprising a region of increased diameter ( tapered region on the rotary ring and annular protrusion on the machine part ).

Regarding claim 20, Ellis further discloses a system wherein one of the cooperating means is located on the rotary machine part ( i.e. annular protrusion ).

In regards to claim 21, Ellis also teaches a system wherein the region of increased diameter on the rotary machine part is integral to said part.

Regarding claim 23, Ellis also discloses a system wherein the region of increased diameter disposed on said rotary machine part comprises an annular protrusion ( 41, 42 ).

In regards to claim 24, Ellis teaches a system wherein the region of increased diameter on said rotary ring comprises a tapered surface ( See Figure 2 ).

With respect to claim 25, Ellis discloses a system wherein the flexible rotary ring is provided with a tapered surface.

Regarding claim 26, Ellis also discloses a system wherein at least one of the region of increased diameter and the rotary ring ( 21 ) is provided with a tapered surface and forms a self-locking taper.

Regarding claim 27, Ellis further teaches a system wherein the region of increased diameter in said flexible ring comprises a ring-shaped flexible member ( 21, 23 ).

In regards to claim 28, Ellis further discloses a system wherein the region of increased diameter in said rotary ring is shaped so that once the flexible rotary ring ( 21 ) is fitted over said region of increased diameter on the machine part, the central region of said rotary ring is substantially parallel with the axis of said machine part ( See Figure 1 ).

Regarding claim 29, Ellis also teaches the method of mounting a flexible rotary scale ( 21 ) onto a part of a machine ( 25, 26 ), the method comprising the step of stretching the flexible rotary scale onto the part ( See Column 4, lines 25 – 31 ).

In regards to claim 30, Ellis teaches a method of mounting a flexible rotary scale (21) onto a rotary machine part ( 25, 26 ) wherein the rotary machine part has a region of increased diameter ( See groove and groove walls of Ellis ) and the method includes the step of stretching the flexible rotary ring ( 21 ) over the region of increased diameter of said rotary machine part.

Regarding claim 31, Ellis also disclose a method of mounting a flexible rotary scale ( 21 ) onto a rotary machine part wherein the region of increased diameter (groove and groove walls 41, 42 ) is integral with the rotary machine part.

Regarding claim 33, Ellis also teach a method of mounting a flexible rotary scale ( 21 ) onto a rotary machine part ( 25, 26 ) wherein the region of increased diameter on said rotary machine part comprises an annular protrusion ( defined by the groove and groove walls 41, 41 as shown in figure 4 ).

With respect to claim 34, Ellis disclose a method of mounting a flexible rotary scale ( 21 ) onto a rotary machine part wherein the region of increased diameter on said flexible rotary scale ( 21 ) comprises a tapered surface ( See Figure 2 ).

In regards to claim 35, Ellis further teach a method of mounting a flexible rotary scale onto a rotary machine part wherein the flexible rotary scale ( 21 ) is also provided with a tapered surface ( See Figure 2 ).

Regarding claim 36, Ellis discloses a method of mounting a flexible rotary scale onto a rotary machine part wherein the flexible rotary scale ( 21 ) is provided with a tapered surface and forms a self locking taper ( See Figures 1 and 2 ).

With regards to claim 37, Ellis discloses a method of mounting a flexible rotary scale onto a rotary machine part wherein the region of increased diameter in said rotary machine part comprises a ring-shaped member ( defined by the grooves 32, 33 and groove walls 41, 42 ).

With regards to claim 38, Ellis also disclose a method of mounting a flexible rotary scale onto a rotary machine part wherein the region of increased diameter of said rotary machine part is shaped so that once the flexible rotary scale is fitted over said region of increased diameter, the central region of said flexible rotary scale is substantially parallel with the axis of said part ( See Figure 1 )..

In regards to claim 39, Ellis also discloses a system for mounting a flexible rotary ring ( 21 ) for use in a scale reading apparatus onto a rotary machine part ( 25, 26 ), comprising a flexible rotary ring ( 21 ) having scale markings provided on a surface thereof ( See Figure 1 ), wherein a tapered surface ( 23, 34, 35 ) is provided on said flexible rotary ring, and the taper angle of said tapered surface is sufficient to form a self locking taper.



***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 22 and 32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Henshaw et al. ( US 6,481,115 ).

Ellis discloses a rotary ring and system as stated in paragraph 5 above.

Ellis does not disclose the region of increased diameter being not integral with the rotary machine part as stated in claims 22 and 32.

Regarding claim 22, Ellis discloses a system wherein the region of increased diameter is integral with the machine part. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the region of increased diameter being not integral to the machine part, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together or vice versa involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 ( 1893 ).

With regards to claim 32, Ellis shows a method of mounting a flexible rotary scale ( 21 ) onto a part of a machine wherein the region of increased diameter is integral with the part of the machine. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the region of increased diameter being not integral to the machine part, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together or vice versa involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 ( 1893 ).

#### ***Response to Arguments***

8. Applicant's arguments, see remarks, filed February 7, 2006, with respect to the rejection(s) of claim(s) 1 – 2 and 20 - 39 under 35 USC 102 and 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ellis ( US 4,332,087 ).

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

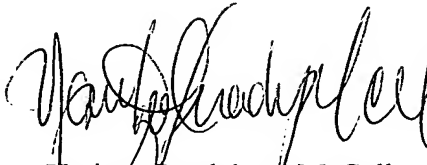
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe McCall whose telephone number is (571)272 -2244. The examiner can normally be reached on 8:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YGM  
April 14, 2006  
Art Unit 2859



Yaritza Guadalupe-McCall  
Primary Examiner